

ATTACHMENT 9

ECONOMIC ANALYSIS – FLOOD DAMAGE REDUCTION COSTS AND BENEFITS

<filename Att9_IG1_MWA_DReduc_1ofTotal1 >

All three projects in this application contribute to flood damage reduction, though flood damage reduction is not the primary purpose of the project, nor are flood damage reductions the primary benefit.

Both the Joshua Basin Water District Recharge Pond Project and the Hi-Desert Water District Wastewater Treatment Plant are located adjacent to major local floodways. Floodway designated by FEMA are shown in Figure 1 and Figure 2.

Both projects are being designed to provide on-site stormwater detention and percolation on their respective 30-acre and 40-acre sites. The JBWD recharge site is particularly suited to this as percolation of captured flows is its primary purpose. The Preliminary Design Report (Attachment C, Att3_IG1_MWA_WorkPlan_3ofTotal4) indicates a 7-acre increase in impervious area for the first phase, and up to 13.5 acres at full project development. This water will be collected on-site, processed through the wastewater treatment plant and discharged to the percolation basins. The value of these benefits has not been calculated, and is not monetized in this analysis.

Both projects are located adjacent to local floodways and will include perimeter berms designed to protect the facilities. The value of this benefit has not been calculated, and is not monetized in this analysis.

The Mojave Water Agency Turf Removal Conservation Incentive Program will provide rebates to incentivize removal of up to 6 million square feet of turf grass with partial replacement with low-water use native plants and xeriscape. As part of the pre-project inspection, MWA will provide landscape architecture consultation for design of landscapes that will retain and percolate rainfall on site, reducing stormflows to flood-prone areas. The location of existing turf replacements from the first two years of the program in relationship to the Mojave River floodplain and other local floodways is shown in Figure 3. The value of the flood reduction benefit has not been calculated, and is not monetized in this analysis.

Figure 1 - FEMA Q3 Floodway Mapping -- JBWD Recharge Basin and Pipeline Project

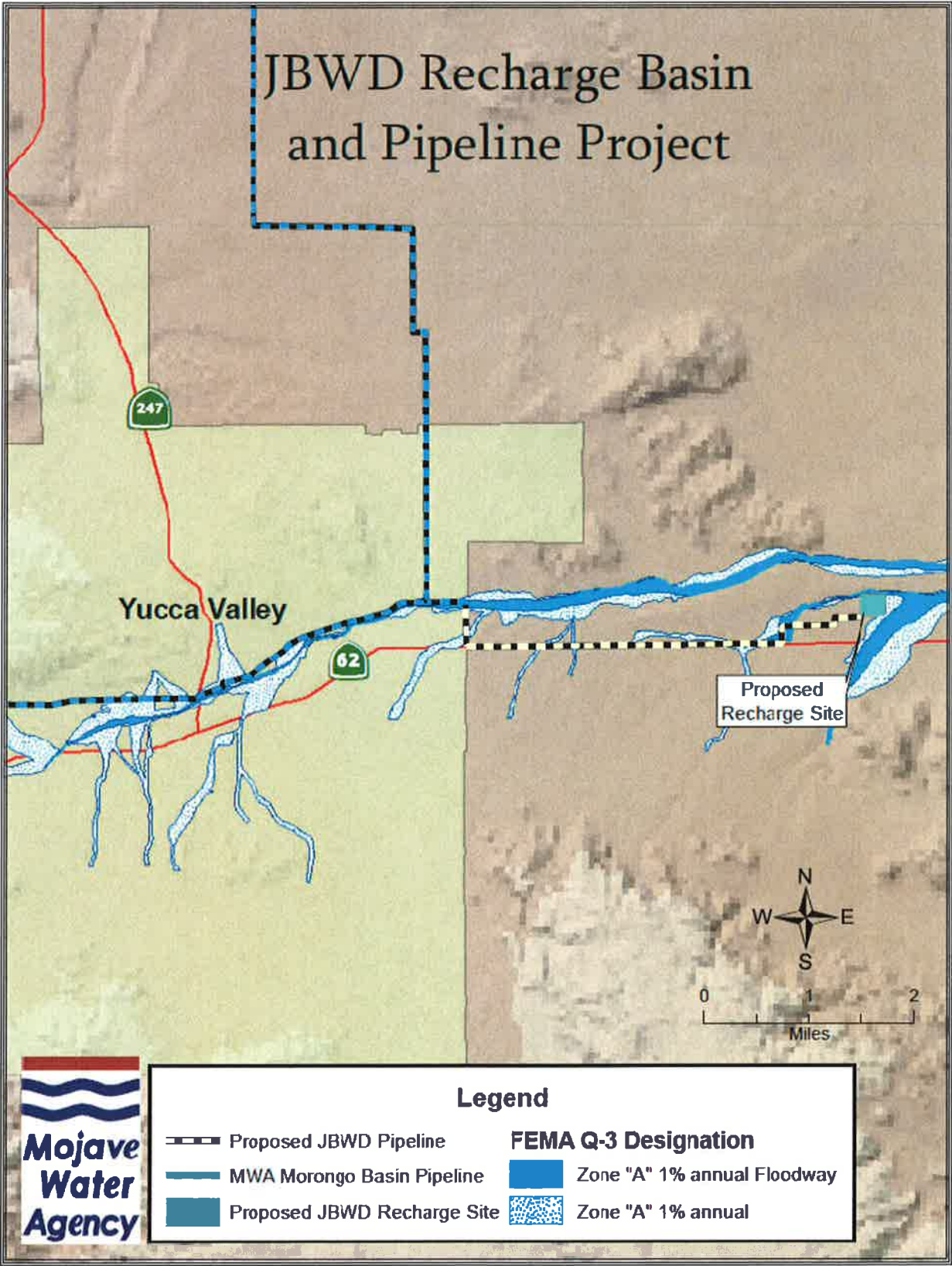


Figure 2 -- FEMA Q3 Floodway Mapping -- HDWD Wastewater Treatment and Water Reclamation Project

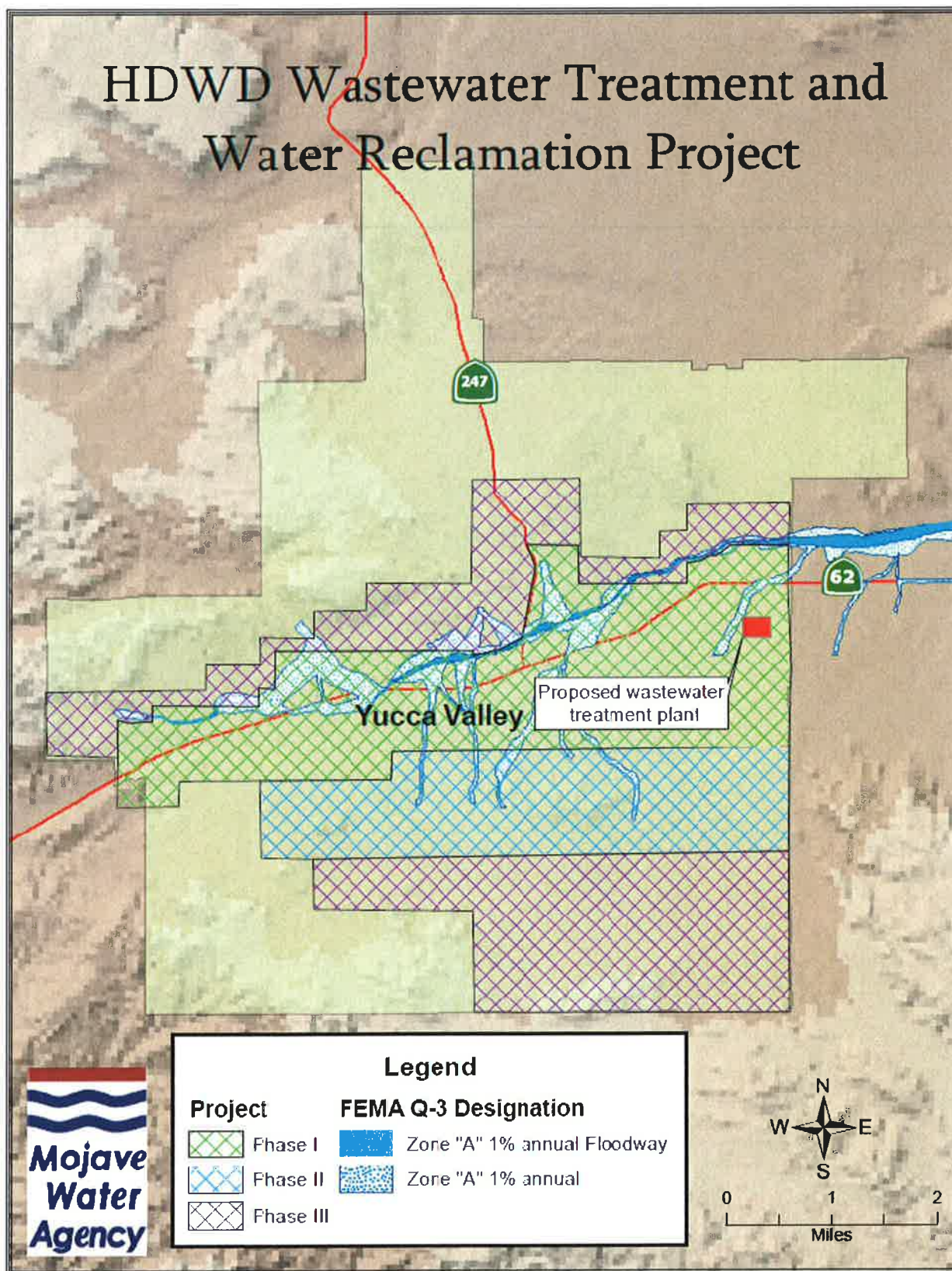


Figure 3 - FEMA Q3 Floodway Mapping - Turf Removal Conservation Incentive Program Area

